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DERMOID CYST OF THE ANTERIOR FONTANELLE IN ADULTS

Case report

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ABSTRACT - Head and neck dermoid cysts are lesions relatively rare, which usually occur during childhood as solitary lesions. They are often identified and surgically removed at birth, being uncommon in adults. A 23-year-old male presented with a congenital tumor of the anterior fontanelle, which histopathological examination revealed a dermoid cyst. Surgical intervention is the treatment of choice to remove this lesion. The objective of this study is to report the case, once this type of lesion is rare in adults.

KEY WORDS: dermoid cyst, epidermoid cyst, anterior fontanelle, adult.

Cisto dermóide na fontanela anterior de adulto: relato de caso

RESUMO - Cistos dermóides de cabeça e pescoço são relativamente raros e, usualmente, ocorrem na infância como lesões solitárias. Eles são diagnosticados e operados ao nascer, na maioria dos casos; portanto, essa é uma lesão incomum no adulto. Um homem de 23 anos apresentava tumoração congênita na fontanela anterior, cujo exame histopatológico revelou ser cisto dermóide. Foi submetido a tratamento cirúrgico. O objetivo desse estudo é relatar o caso, uma vez tratar-se de condição rara no adulto.

PALAVRAS-CHAVE: cisto dermóide, cisto epidermóide, fontanela anterior, adulto.

Head and neck dermoid cysts are relatively rare, and usually occur during childhood as solitary lesions[1]. The cysts over the anterior fontanelle represent about 0.1% of all skull tumors and they are identified and surgically removed at an early age. Therefore, this pathology is rarely observed in adulthood. In order to correctly identify these lesions, diagnostic imaging such as simple X-rays and computer tomography (CT) scan are necessary, besides physical evaluation[2].

We report a case of dermoid cyst over the anterior fontanelle in an adult patient.

CASE

A 23-year-old man seeked medical help at the Neurology department of Instituto Doutor Jose Frota hospital with a mass over the anterior fontanelle, diagnosed as congenital, which increased in size over the years since the birth (Fig 1). The patient did not show neurological symptoms. The CT scan of the skull demonstrated extracranial lesion with cystical appearance, without intracranial communication (Fig 2). During the excision of the lesion, it was observed a cyst containing a viscous, odorless, and green-colored liquid, with hair (Fig 3). The bacterioscopy of this liquid was negative. The cyst was removed together with its walls, the excess of scalp was ressected, and the skull was properly covered with the patient's skin maintaining the natural hair line. A skull depression underneath the lesion could be observed. A drain with continuous suction was positioned and removed after two days containing a serum-bloody secretion. The histopathological exam of the lesion revealed dermoid cyst. There were no surgical intercurrencies, and the patient recovered without complaints and very satisfacted with the functional and aesthetical results.

DISCUSSION

Adeloye and Odeku[3] were the first authors to publish a complete description of the dermoid cyst. The congenital inclusion dermoid cyst (CIDC) is a cystic, soft, and mobile mass, covered by normal skin,

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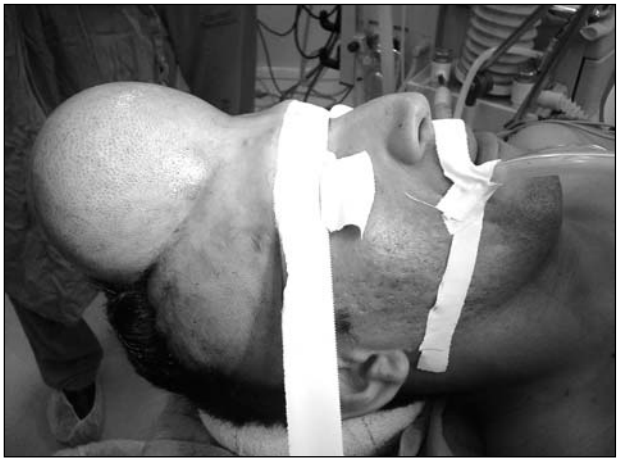

Fig 1. Overview of the patient with dermoid cyst of the anterior fontanelle before surgery.

which does not cause pain or discomfort. In the case of cranial CIDC, there is no communication between the cyst and the intracranial cavity. Depending upon the patient's age and when the diagnosis was made, various cyst sizes have been reported[3-5]. Usually, the diagnosis is made at birth, but a few authors have reported cases on adults[5-7].

The CIDC is a tumor which development is related to the inclusion of dermal elements inside the neuroaxis between the third and fifth week of embryogenesis, when the ectoderm folds towards the center of the neural tube[7,8]. The cyst walls are lined by squamous epithelium, and there are adnexial appendage structures such as hair follicles, and sebaceous and sweat glands[9-12]. The fluid can be light-colored or yellow, depending upon the size and age of the lesion, and the contents of the sweat glands, in which we can quantify higher levels of sodium, potassium, chloride, and glucose[13,14].

A simple X-ray of the patient's skull can reveal changes that include flattening or depression of the skull underneath the lesion[15]. Nevertheless, CT scan and magnetic resonance imaging (MRI) are considered the best diagnostic exams to confirm the extracranial position of the cyst[16,17]. Encephalocele, meningocele, hemangioma, lipoma, cephalohematoma, sebaceous cyst, pilonidal cyst and sinus pericranii are important pathologies to the differential diagnosis of this lesion[18-21]. There is no report on neurological alterations nor on the recurrence of the pathology. This lesion is benign and easily and effectively treated by surgical intervention. The surgery prevents a subsequent infection, confirms the diagnosis, and allows a more aesthetically pleasant result to the patient[22].

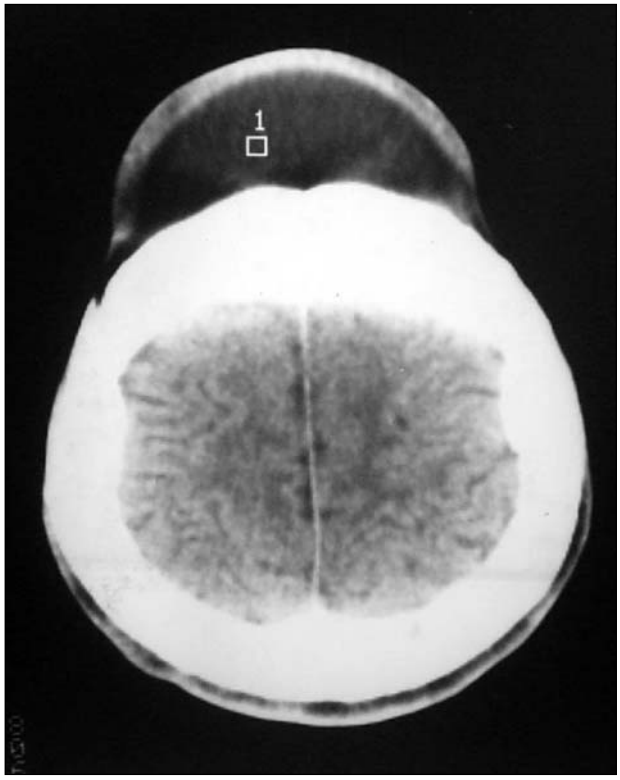

Fig 2. CT scan of the skull that confirms the extracranial position of the cyst without intracranial communication.

Fig 3. Detail of the lesion excision, that revealed a cyst containing a viscous, odorless, and green-colored liquid, with hair.

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